

FIG. 1

PRIOR ART

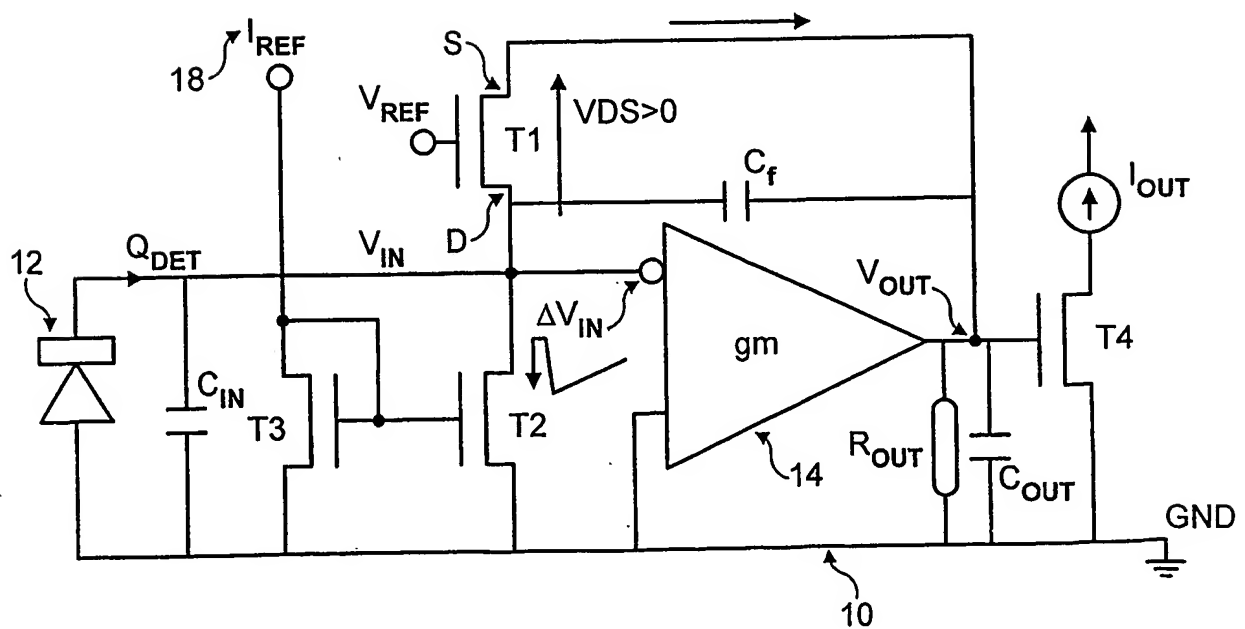
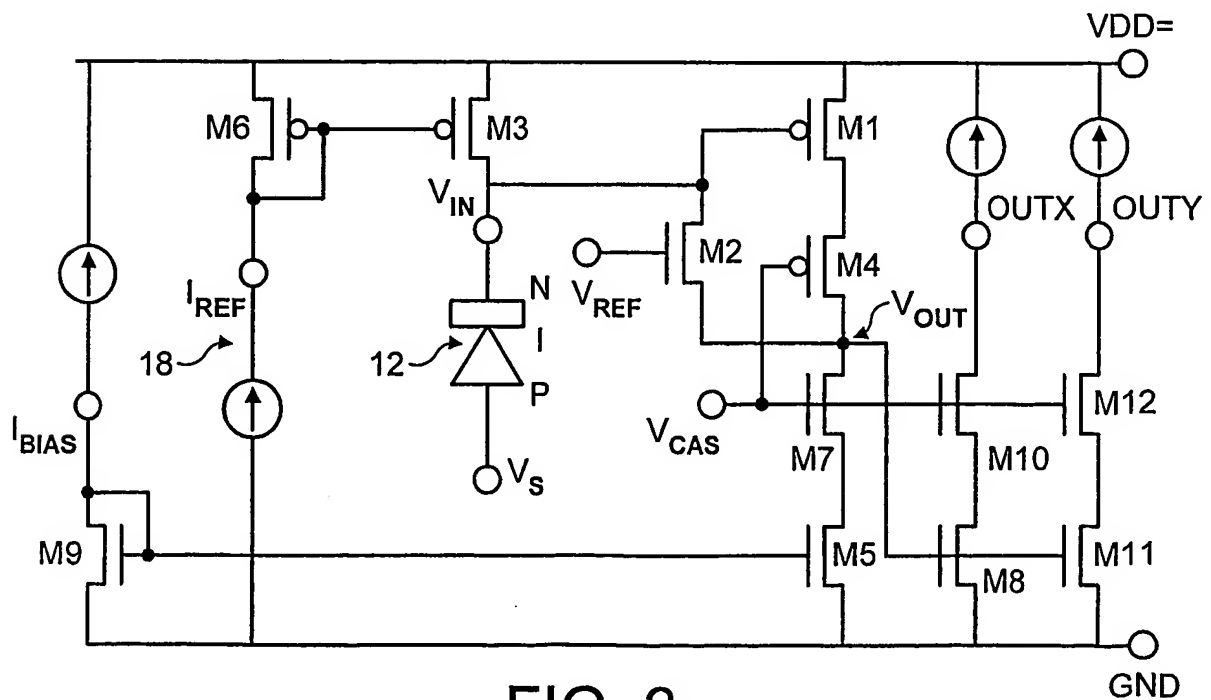
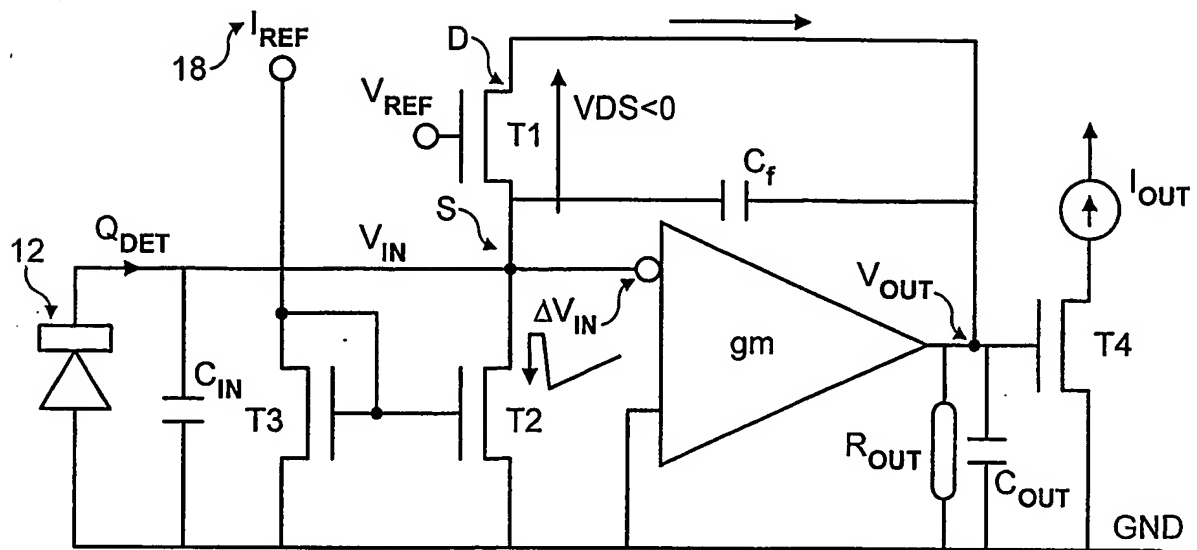


FIG. 2a



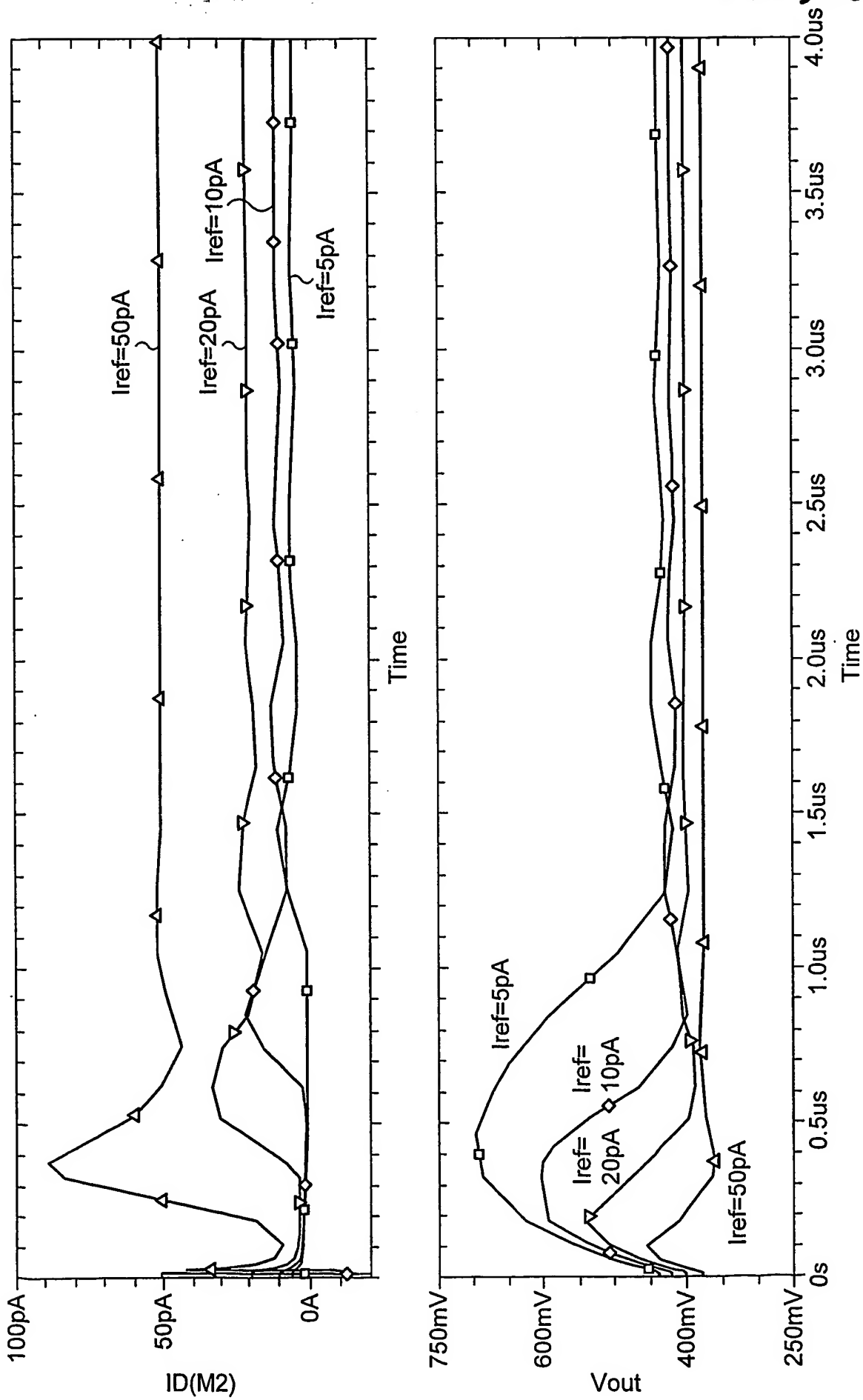


FIG. 5

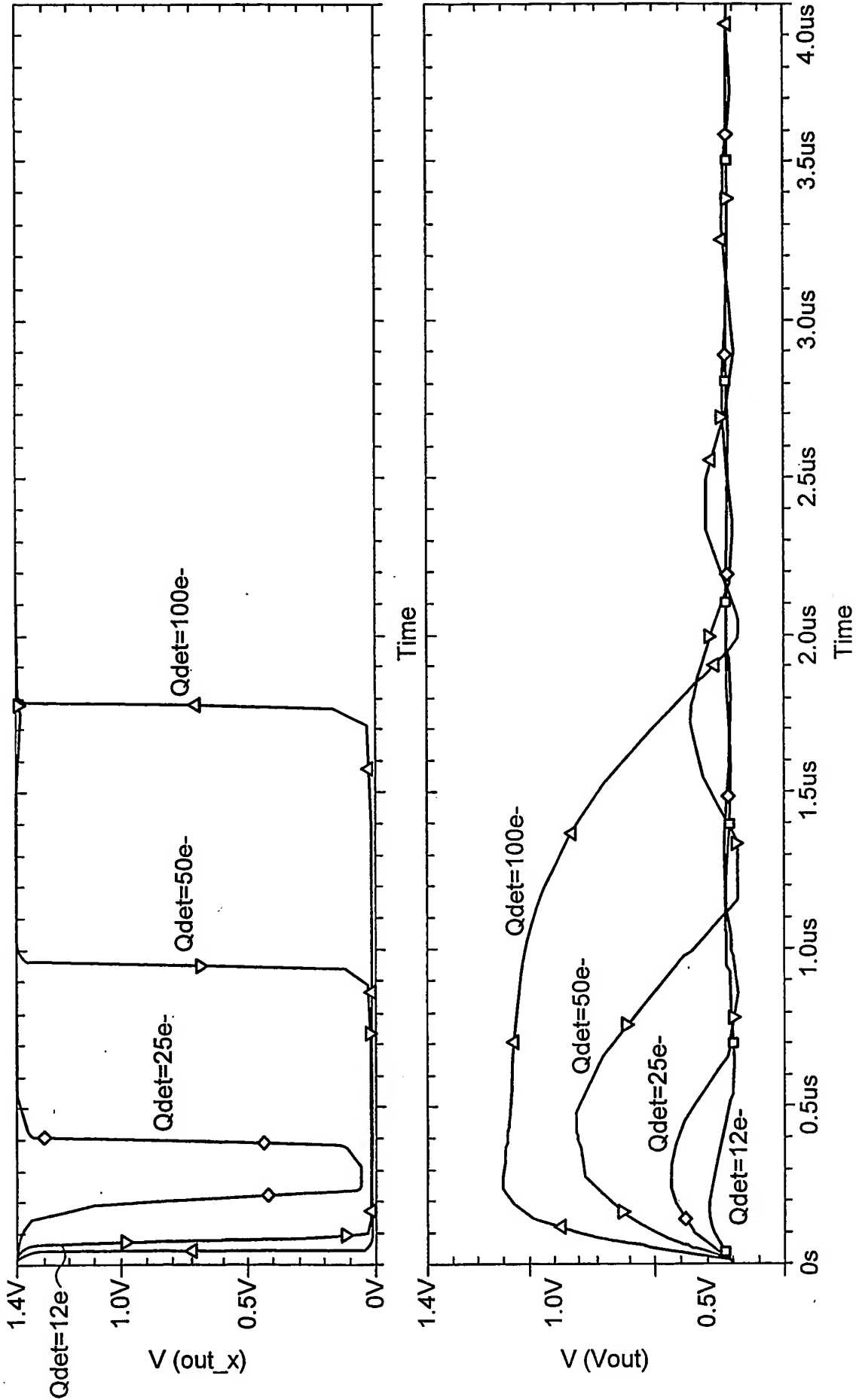


FIG. 6

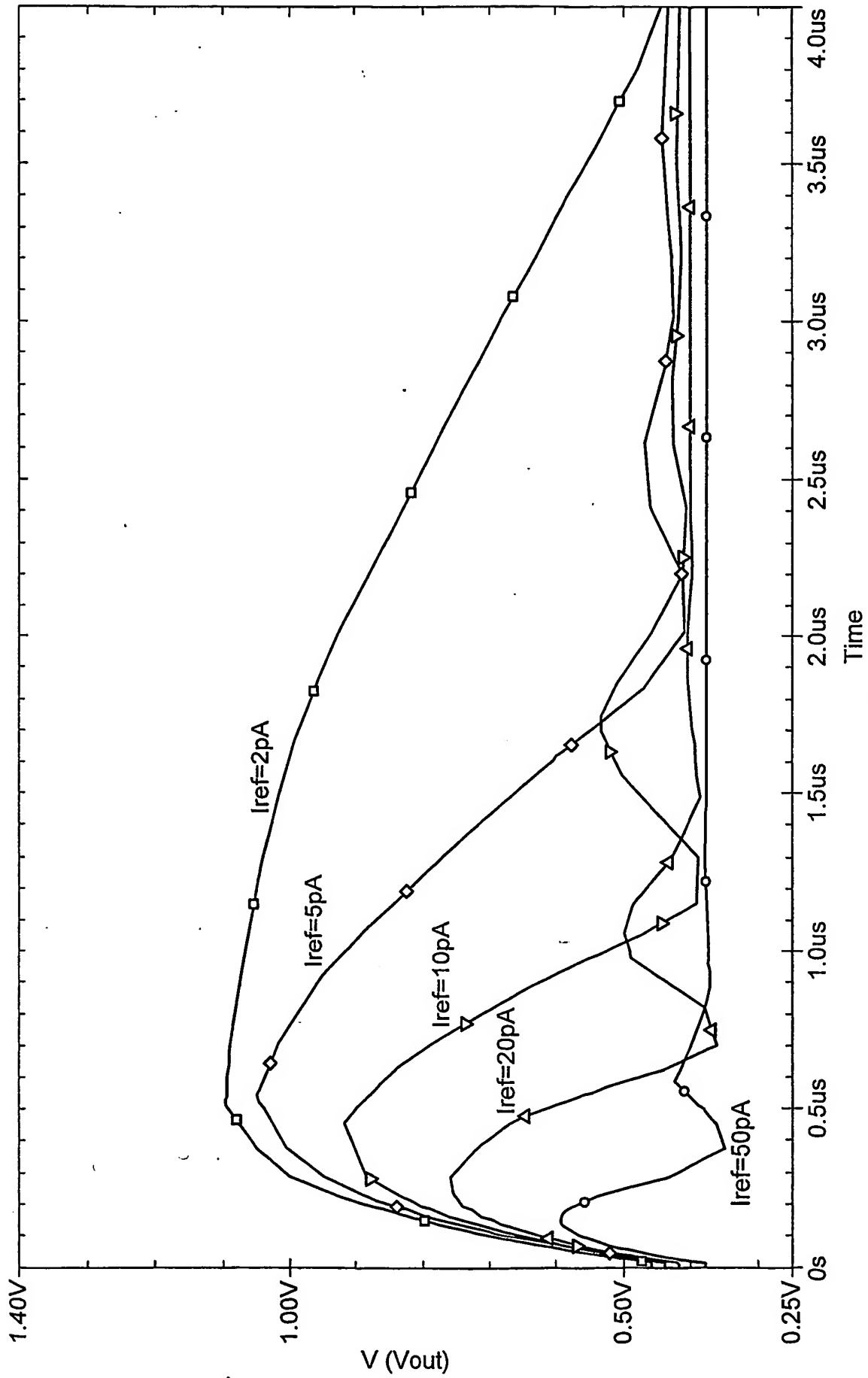


FIG. 7

$$I_{ref} = I_0 \cdot e^{\left[\frac{V_p \cdot V_{out}}{U_t} \right]}$$

$$I_0 = 2 \cdot n \cdot C_{ox} \cdot \left[\frac{W}{L} \right] \cdot U_t^2$$

$$V_p = \frac{V_{ref} - V_{to}}{n}$$

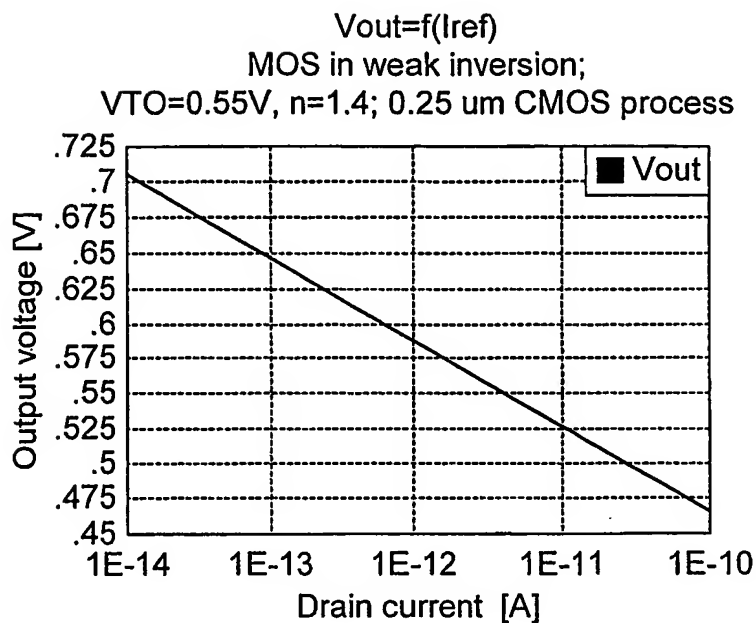


FIG. 8

$$ENC_t = \sqrt{ENC_p^2 + ENC_s^2}$$

$$ENC_s = \left[\frac{1}{q} \right] \cdot \sqrt{\frac{2 \cdot k \cdot T \cdot C_{in}^2 \cdot n}{g_m \cdot T_m}}$$

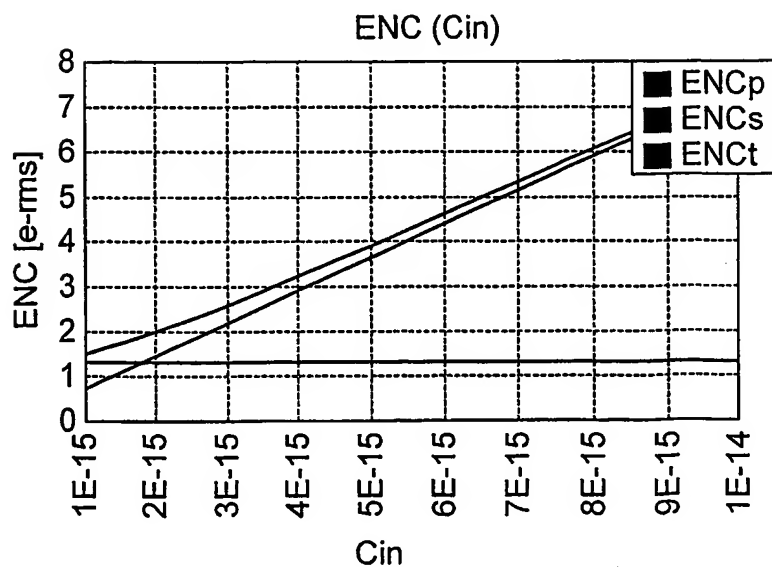
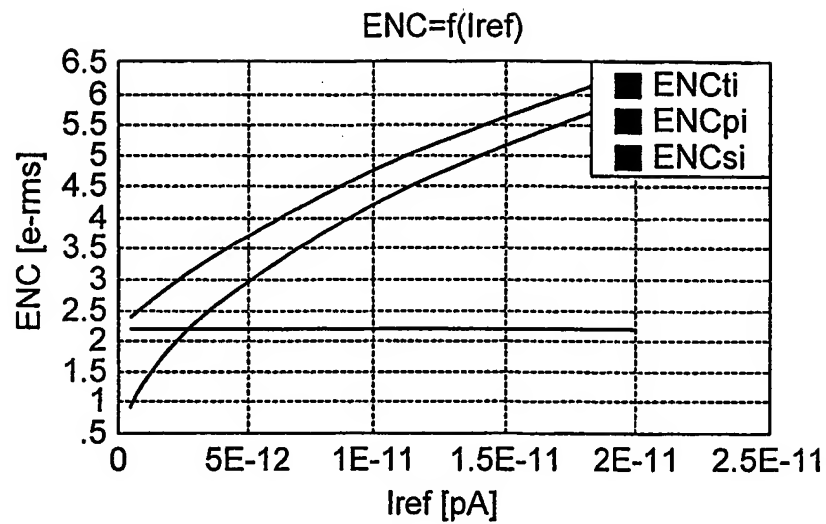


FIG. 9a



$$ENC_{pi} = \left[\frac{1}{q} \right] \cdot \sqrt{2 \cdot k \cdot T \cdot (gm_f + gm_i) \cdot T_m}$$

FIG. 9b

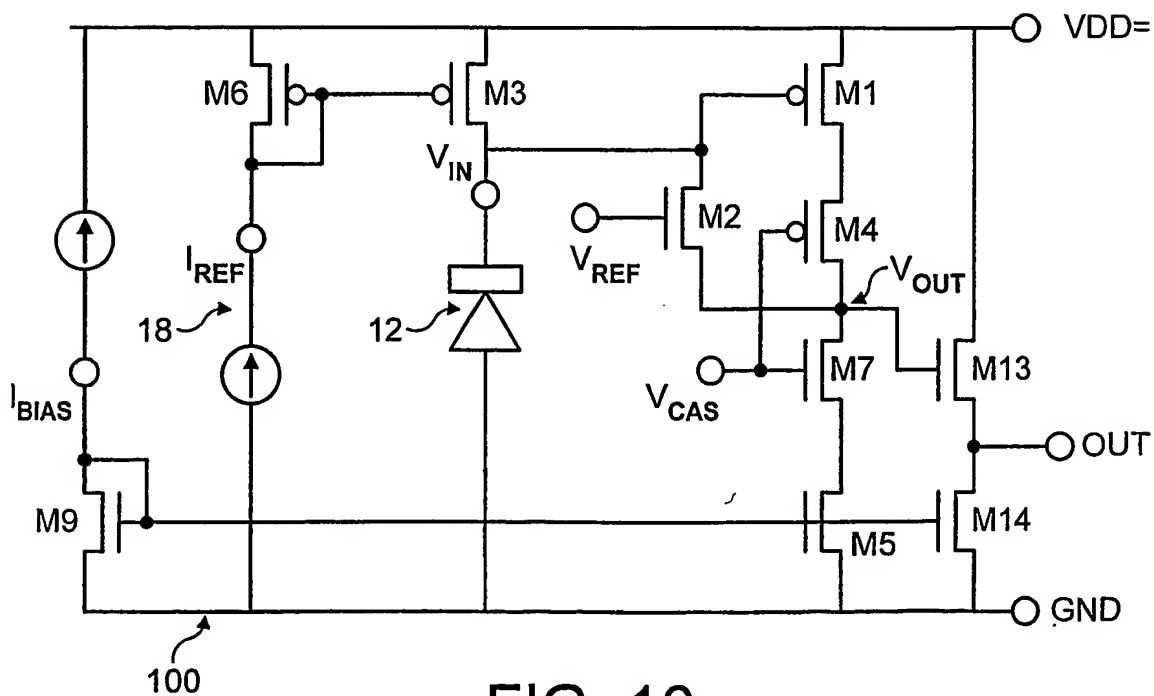


FIG. 10

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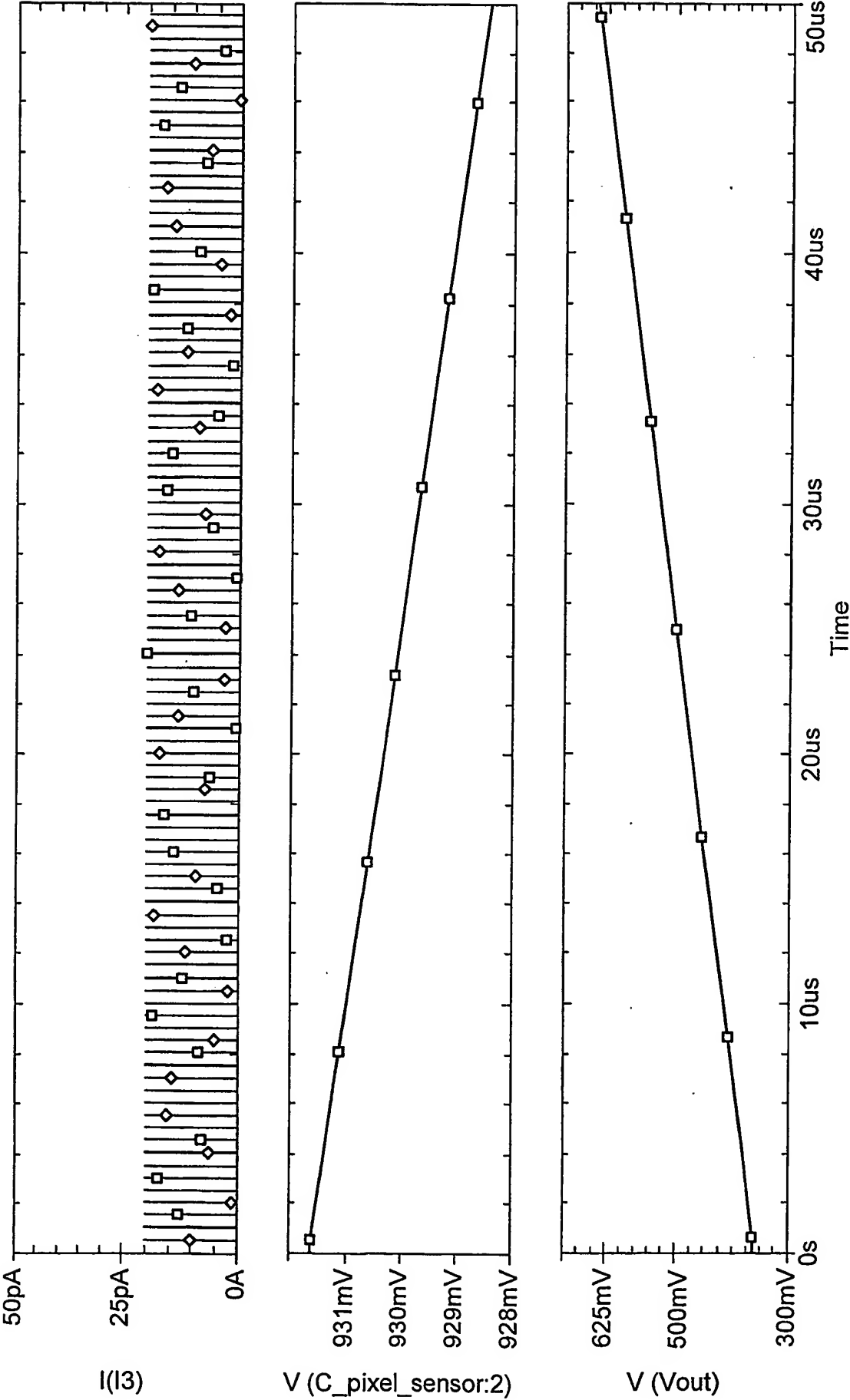


FIG. 11

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10 / 500794

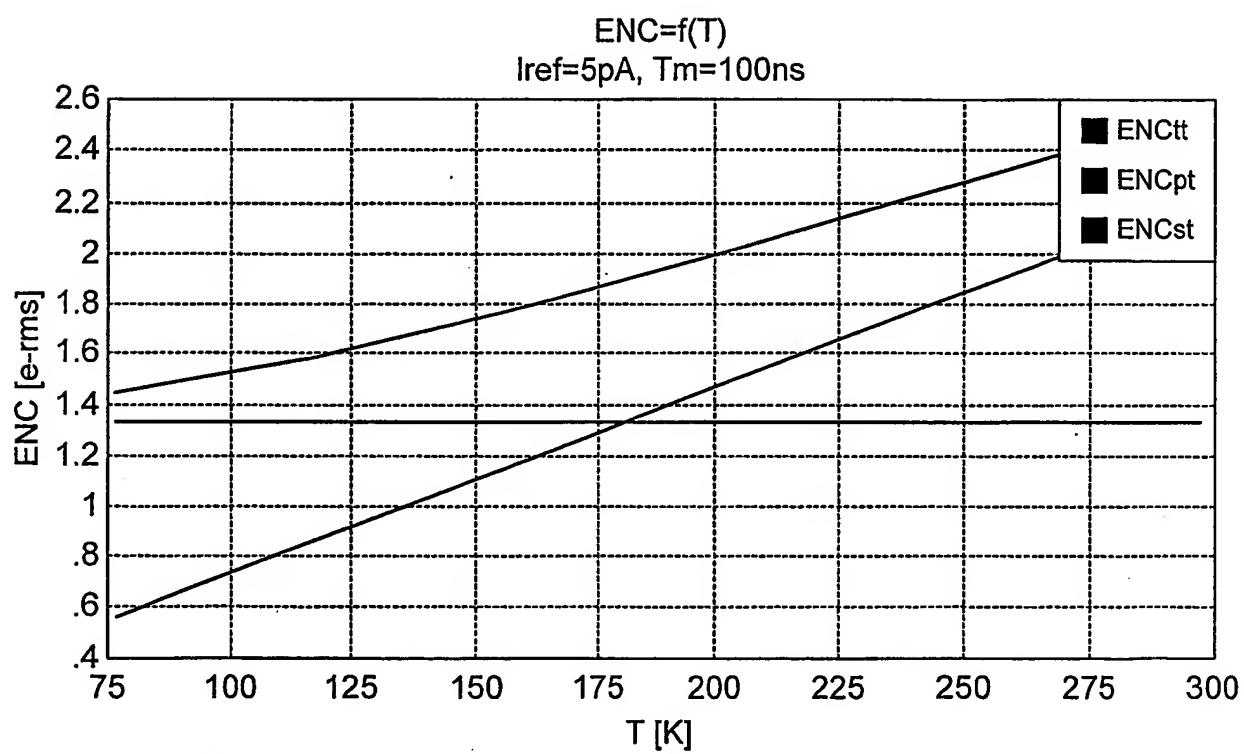


FIG. 12

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10 / 500794

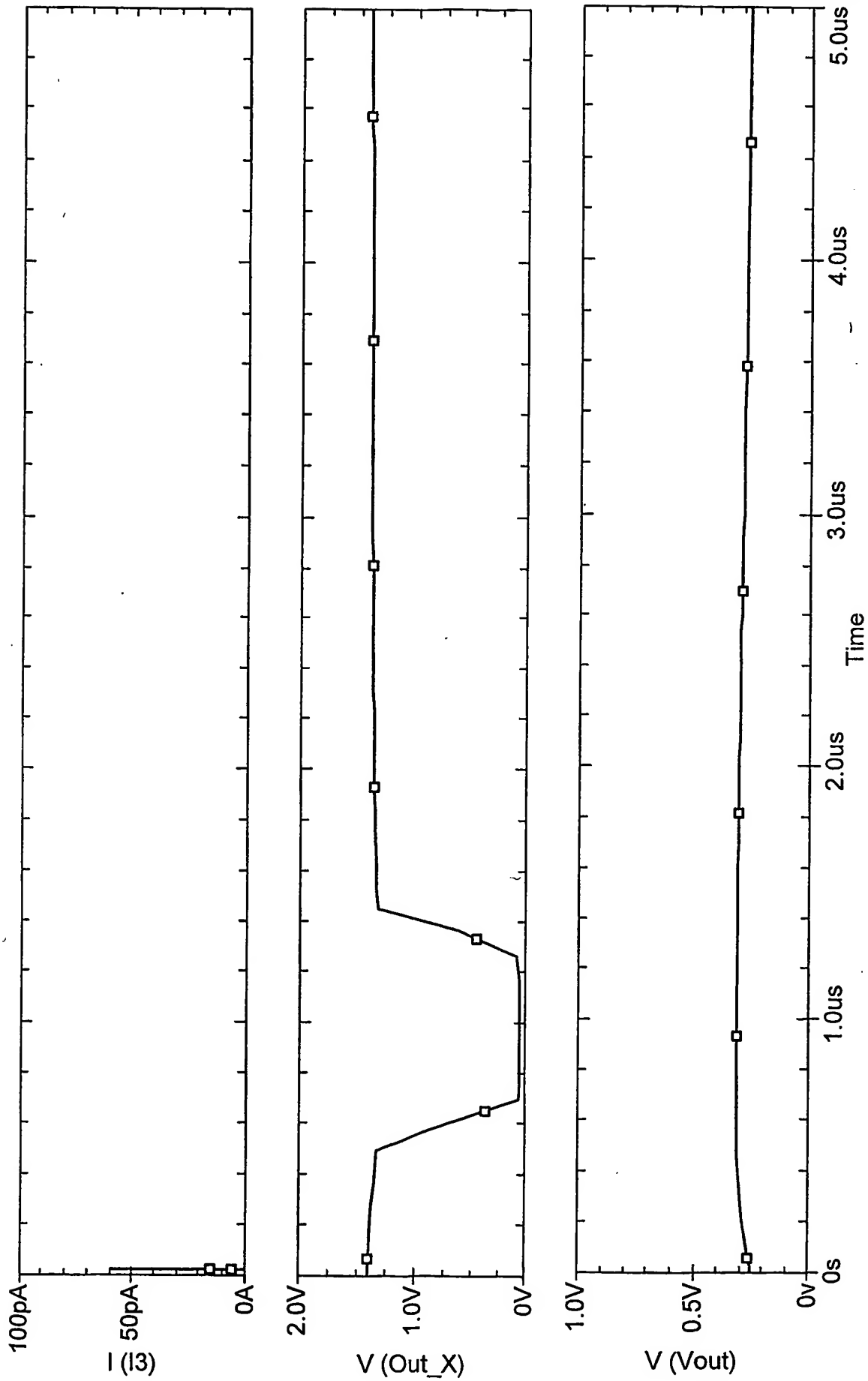


FIG. 13

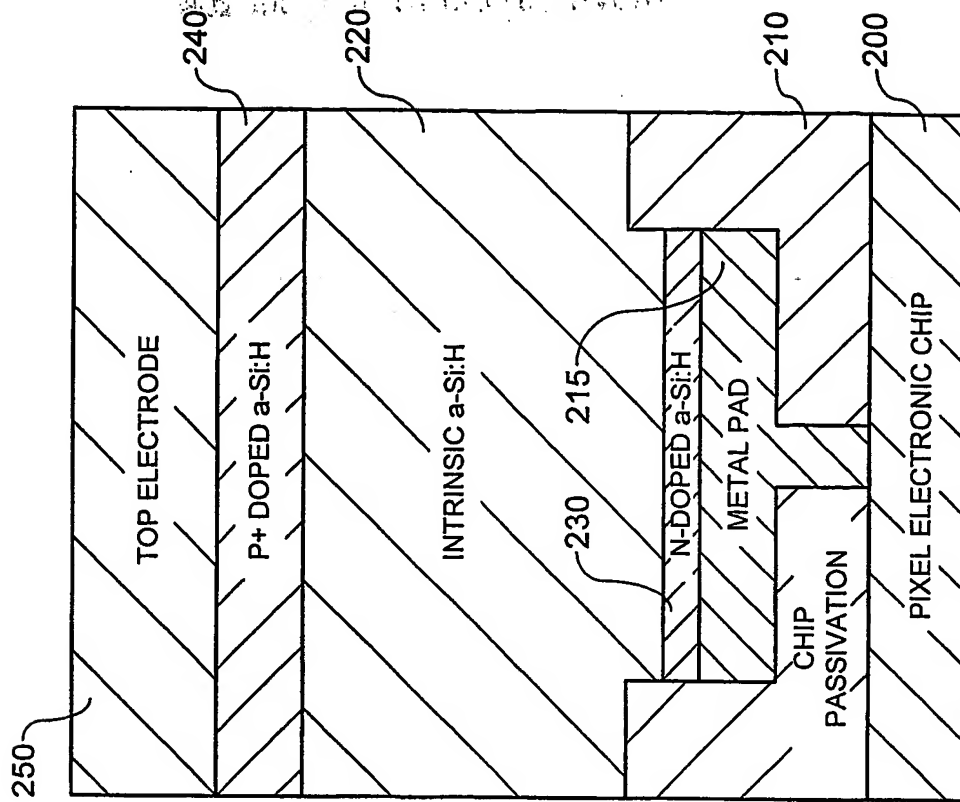


FIG. 15

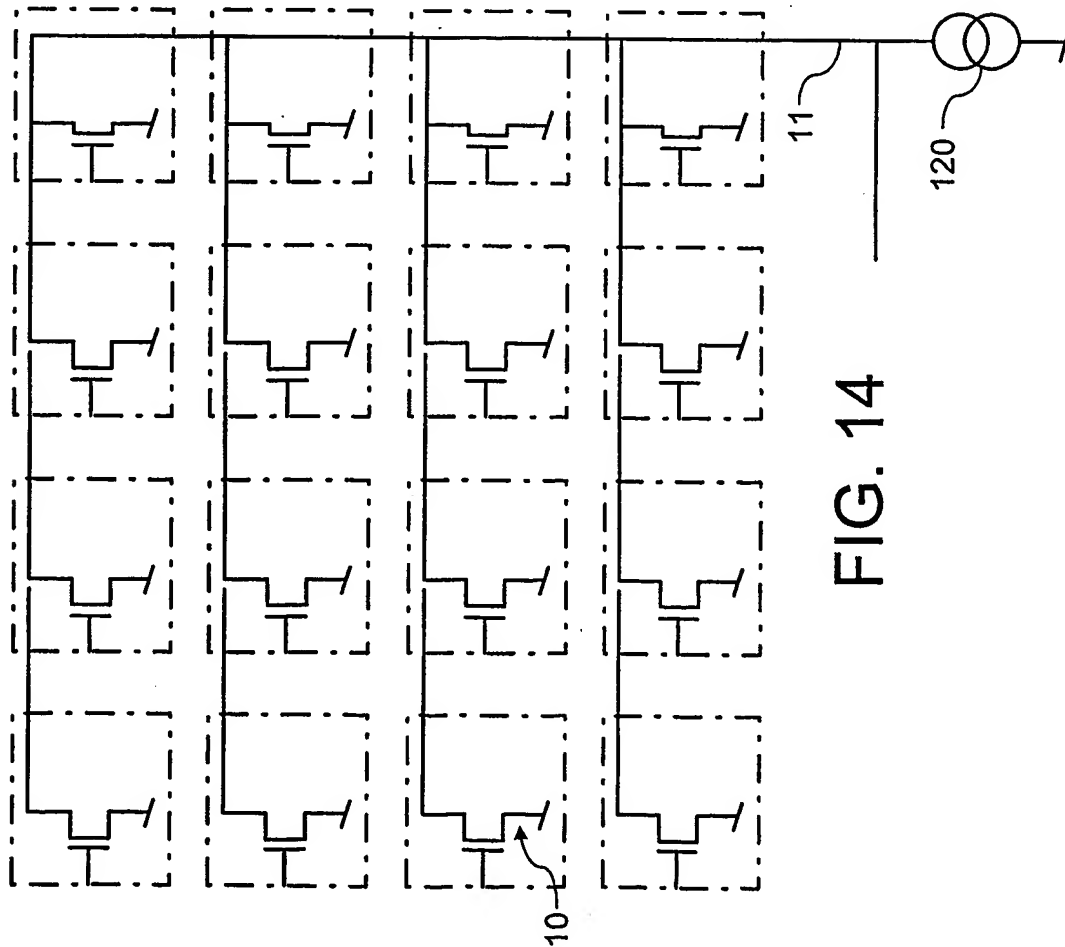


FIG. 14

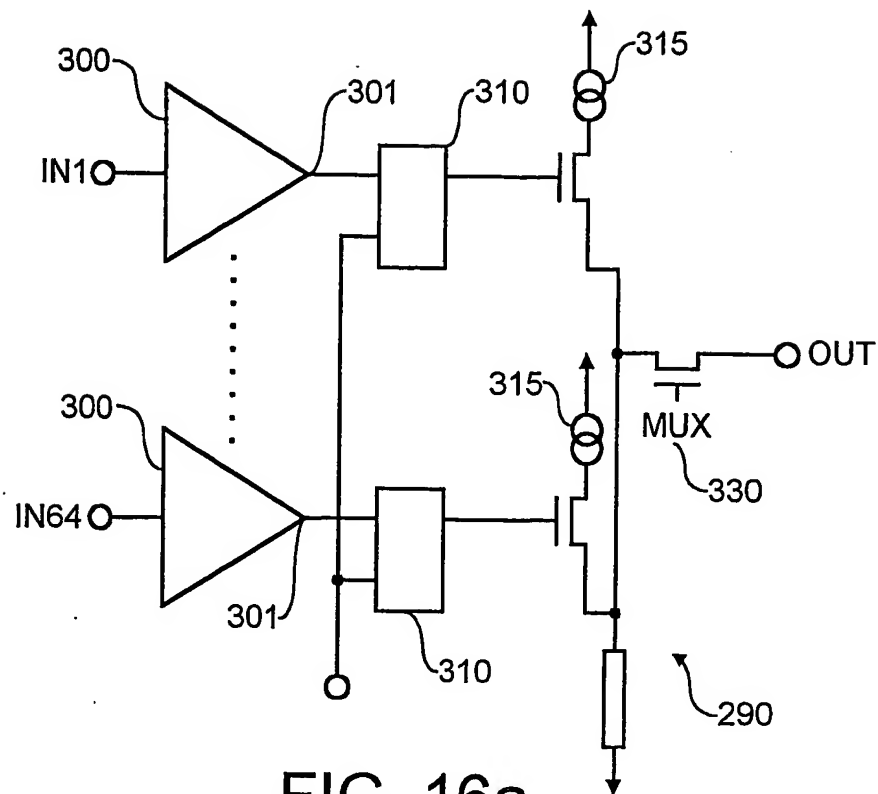


FIG. 16a

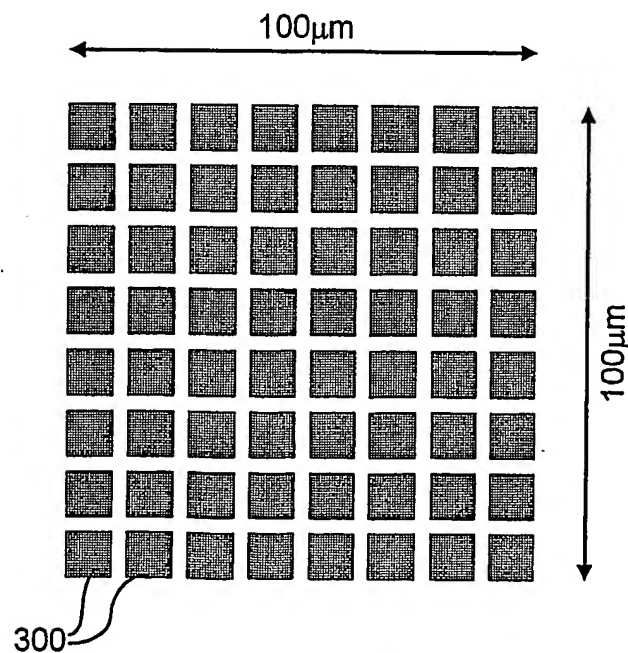


FIG. 16b

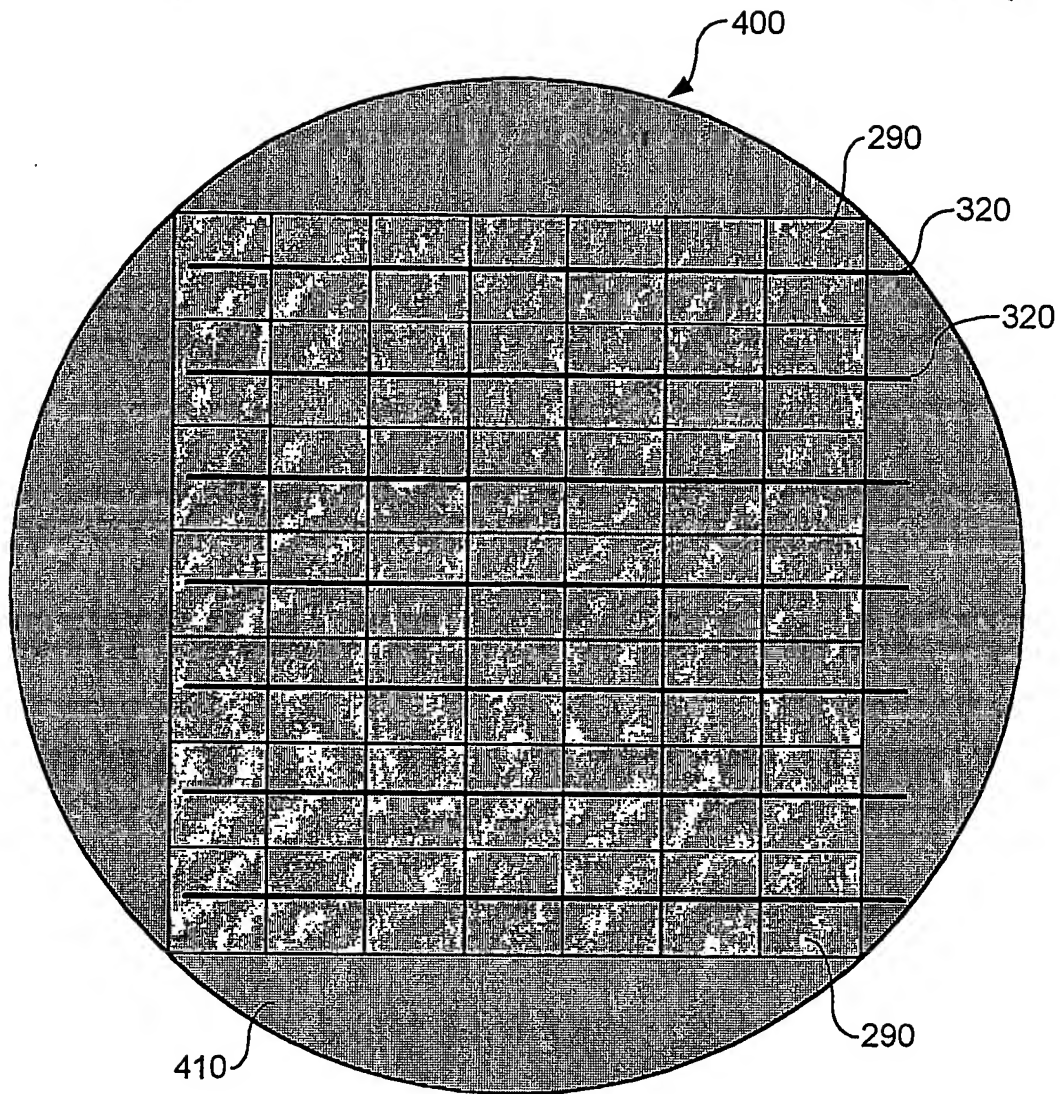


FIG. 17

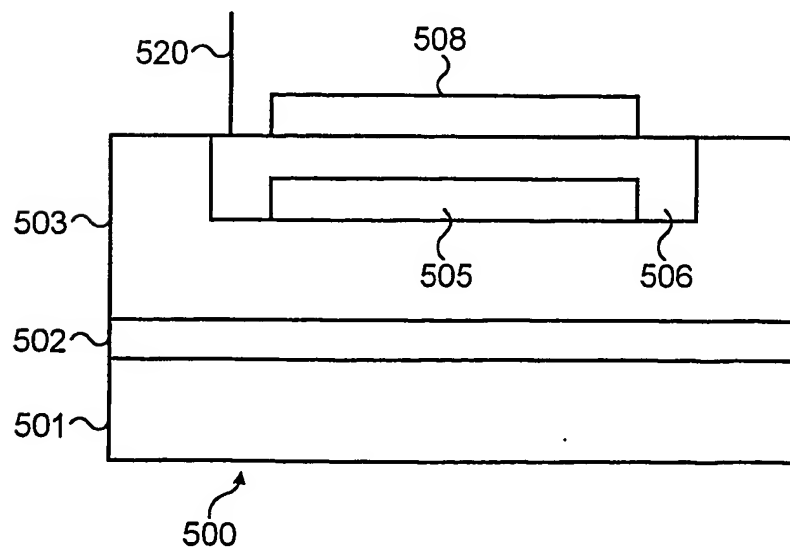


FIG. 18 BEST AVAILABLE COPY